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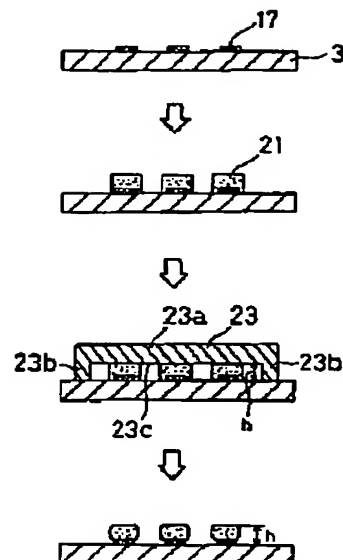
APPLICANT : NGK SPARK PLUG CO LTD;

INVENTOR : INAISHI MASASHI;

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TITLE : WIRING BOARD WITH SOLDER BUMP,  
ITS MANUFACTURING METHOD, AND  
FLATTENING TOOL

(a)



(b)



**ABSTRACT :** PROBLEM TO BE SOLVED: To provide a wiring board with a solder bump for reducing coplanarity of the solder bump and at the same time for simplifying the measurement of coplanarity, its manufacturing method, and a flattening tool.

**SOLUTION:** The solder eutectic paste of 36Pb-64Sn is printed on an already plated pad 17 of a wiring board 3 so that a pad 17 is covered entirely using a metal mask, thus forming a paste layer 21. Then, a flattening tool 23 is set onto the wiring board 3 so that a plurality of paste layers 21 can be collectively covered. Then, while the flattening tool 23 is placed on the wiring board 3, the wiring board 3 is arranged in a reflow oven, the reflow oven is heated to a temperature higher than the melting point of solder by 10-40°C, for example 200°C, before cooling, thus completing the wiring board 3 with a solder bump 1 whose top part is flat.

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